

02-01-024

HDP/SB/21 based on PTO/SB/21 (08-00)

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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/686,506	
	Filing Date	October 15, 2003	
	First Named Inventor	Milligan et al.	
	Group Art Unit	--	
	Examiner Name	--	
Total Number of Pages in This Submission		Attorney Docket Number	0275R-000799

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Form 1449 with foreign references cited; return receipt postcard
Remarks		The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 02-2548. A duplicate copy of this sheet is enclosed.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name	Michael D. Zalobsky
Reg. No.	45,512		
Signature			
Date	March 31, 2004		

CERTIFICATE OF MAILING/TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below.			
Typed or printed name	Michael D. Zalobsky	Express Mail Label No.	EV 406 074 855 US (03/31/2004))
Signature		Date	March 31, 2004

EV 406 074 855 US



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/686,506
Filing Date: October 15, 2003
Applicant: Milligan et al.
Group Art Unit: Unassigned
Examiner: Unassigned
Title: HAND-HELD CORDLESS VACUUM CLEANER
Attorney Docket: 0275R-000799

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. ☐ Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. ☐ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were

previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☒ Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. Since the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☒ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☐ See the attached foreign patent office communication from a counterpart foreign application:

2. ☐ English translations are provided:

3. ☒ Other:

DE 100 56 935 appears to disclose a vacuum cleaner having a dust collection chamber (Ia) in which a cyclone dust collection means (7) is provided, which means comprises a hollow cylindrical cyclone body (11) with an open upper side (IIa), a closed bottom (IIb) and a dust exit (IIc) wherein the dust loaded air enters the cyclone body at the upper side and dust separated from the air by centrifugal effect leaves through the dust exit (IIc). The means appears to further

comprise a dust container (13) covering the bottom and part of the outer surface of the cyclone body wherein a bottom element (15) is rotatably coupled with the bottom of the dust container (13).

DE 101 10 582 appears to disclose an upstanding vacuum cleaner having a dust collection chamber (11) with a removable cyclone dust collection means (17) which comprises a first cyclone body (30) and a second cyclone body (40) located within the first cyclone body (30) and having a plurality of holes (41) wherein a lower door (50) is mounted on the first cyclone body (30) and has an output opening (51).

O 468 200 appears to disclose a tubular filter having an outer wall of subsequent folds (1). The spaces (2) between the folds (1) widen towards the bottom end of the filter when the filter is installed. In connection with the description of embodiment it is stated that tangential air flow of the suction air avoids deposition of dust.

EP 0 647 114 appears to disclose a vacuum cleaner having an air flow path between a dirty air inlet and a clean air outlet with a cyclone (18) arranged in this path to effect cleaning of dust-laden air. At least one bleed valve (20) is provided between the dirty air inlet and the cyclone. Two cyclones may be used wherein bleed air is combined with partially filtered air before entry thereof into the second cyclone.

EP 1 161 915 appears to disclose an air stream channel (4) within a household suction or blowing appliance, in particular a vacuum cleaner. The inner wall of the air stream channel (4) comprises a structure that apparently causes the micro-turbulences in the flow.

630 169 appears to disclose a portable or handheld vacuum cleaner having a housing with a suction tube section (19), on which a bracket (20) is positioned that carries a cap or hood (21), which causes deflection of the air stream entering the suction tube section (19), as indicated by an arrow (25). As the cap or hood (21) is positioned symmetrically with respect to the longitudinal axis of the suction tube section (19), no swirling action appears to be caused by the cap or hood (21).

68 13 511 appears to disclose a handheld vacuum cleaner having an air guide channel for entering air, by means of which the air is deflected by 180 degrees and then by 90 degrees to enter the dust bag (STAUBSACK). Swirling action is disclosed.

0 170 720 appears to disclose a handheld vacuum cleaner that comprises a dirt cup (2), into which a tube-shaped inlet duct (32) is incorporated having an inlet or suction opening (30) and at its rearward end a downwardly curved portion. No explanations are offered as to the effect caused by the curved inner end and apparently no swirling action is obtained.

DE 199 59 513 appears to disclose an accessory for a vacuum cleaner. This accessory is formed like a tube-like coarse or pre-filter (18) to be inserted into the input end of a tube (20) or hose to be inserted into the suction opening of the vacuum cleaner. Thereby larger particles like diamond rings, pearls and the like are prevented from being sucked into the "normal" filter of the vacuum cleaner.

1 959 657 appears to disclose a brush operating like a vacuum cleaner wherein the brush housing has an opening closed by a pivotable or removable cover (42) with a window (44). Through the opening an insert (52) comprising a filter web (78) can be inserted into the brush housing and can also be removed. In the inserted state the filter web (78) prevents dust from being sucked into the fan (38) and into the motor (4). Thus, the dust is collected within the brush housing and the window (44) allows the user to see when the brush housing requires emptying. Then the cover (42) is opened and emptying is effected by tipping the unit over.

1 607 730 appears to disclose a filter insert having a pleated circumferential wall of filter material (1) connected to end caps or rings (2). The caps or rings (2) have tongue-like projections (6), which are spaced exactly like the pleated sections (5).

DE 33 25 336 appears to disclose a filter for a small handheld vacuum cleaner, which filter comprises a frame (9), which carries the filter material. The frame (9) effects sealing with respect to the dust bowl (3).

DE 37 27 980 appears to disclose a small handheld vacuum cleaner with a filter arrangement comprising a support basket (80), which is covered by a paper napkin (88). The basket comprises a support ring section (82), which forms an outwardly directed elastic sealing lip (84) for engagement with an inner surface of an intermediate housing member (36).

DE 196 53 570 appears to disclose a small handheld vacuum cleaner with a filter bag (24) inserted into a support frame (26), which is provided with a sealingly attached end member (30) that forms an outer lip (32) for sealing engagement with the vacuum cleaner housing (12).

1 874 119 appears to disclose a filter arrangement for a vacuum cleaner with a filter basket (3) for receiving the filter (5). At the upper rim of the filter basket (3) projections (6) are provided, which engage behind a continuous rim (7) of a housing cover (2) when the filter basket is inserted.

0 160 168 appears to disclose a gas filter cartridge comprising a pleated filter medium and a support, on which the filter medium is supported. The support comprises wire stays.

0 548 523 appears to disclose an annular filter member comprising a pleated non-meltable filter material and having end caps of plate or film-like filter material, which are sealingly covering the longitudinal edges of the filter material. The end caps appear to consist of non-woven thermoplastic fiber material and are welded to the end edges of the pleated filter material by ultrasonic welding.

620 117 appears to disclose a filter arrangement with an inner coarse filter consisting of three filter sections (16, 17, 18) which may be formed of sieve-like material, and which filter is inserted into a bag-like fine filter (19) consisting of paper. Both the coarse or pre-filter and the fine filter have flanges (29, 28) at their input ends and the fine filter (19) is enclosed by a protective sieve (30, 31).

1 403 128 appears to disclose a filter bag for vacuum cleaners wherein the circumferential wall of the bag consists of pleated paper. The filter bag may be held in its position by a clamping ring (5 in Figure 2).

1 403 131 appears to disclose a filter arrangement for a vacuum cleaner having a coarse filter (12) inserted into a fine filter (11) of foamed plastic material.

1 611 157 appears to disclose a filter unit (1) having end caps (2, 3) and containing a paper filter element (7) having a pleated structure and forming a cylindrical element. The medium to be filtered, e. g. oil, will enter through the outer surface of the pleated filter material which may be enclosed by a perforated sleeve (9), and will leave the filter unit through the central bottom opening (15).

85 06 818 appears to disclose a paper filter bag (7) located within a filter chamber (2) of a vacuum cleaner and being wave-like deformed by ribs provided on the enclosing plastic basket (9).

86 23 695 appears to disclose a filter for a vacuum cleaner which consists of a truncated cone of pleated filter material and comprises enforcement rings (2, 3) at both ends.

DE 33 09 162 appears to disclose a battery powered small handheld vacuum cleaner having a dust container (11) releasably connected to the motor housing (10). To the front end of the dust container a suction nozzle (18) is pivotably connected which, in the rest position, is inserted in a recess (17) at the bottom side of the dust container (11).

DE 197 33 680 appears to disclose a vacuum cleaner having a dust collection space which can be closed by a dust space cover which is pivotably connected to the vacuum cleaner housing and can be latched in its closed position.

1 988 318 appears to disclose a handheld vacuum cleaner which, according to Figure 4, has a nozzle (4) pivotably connected to the vacuum cleaner housing at 19. The dust filter (15) extends into the nozzle (4).

90 12 439 appears to disclose a combination of dust collection housing and nozzle (1) to be releasably connected to the motor housing of a small handheld vacuum cleaner. The dust collection housing appears to have a suction slot with a pivotable sealing lip. Windows (4 & 5 in Figure 1 and 6 in Figure 3) are provided in the housing and nozzle (1).

EP 0 116 870 appears to disclose a vacuum cleaner with a dust collection chamber (4) in which a filter bag (3) is located. The dust collection chamber (4) is closed by a cover (5) which is pivotably connected to the vacuum cleaner housing (1) by means of a pivot arm (6) which is designed to maintain the cover (5) in the open position, as indicated in Figure 3.

DE 37 43 083 appears to disclose a small handheld vacuum cleaner with output vents (8) in the rear end wall of the housing, which are formed by a rib-like structure and which are covered at the inside by a fine filter (54). The vent openings do not appear to be located adjacent to or near the fan or the motor.

DE 199 03 734 appears to disclose a vacuum cleaner having a grid member (7) for covering an air exit opening, which is located in a housing element just above a fan arrangement (3). On top of the grid member a filter element (8) may be positioned, which may consist, as shown in Figure 7, of a lower grid section and an upper grid section with filter material (25) provided between these sections.

DE 199 25 277 appears to disclose a vacuum cleaner with an air exit opening (6) in a vacuum cleaner housing (1). The opening (6) is covered by a grid structure (7) and forms the end of a channel (2), in which filter elements (3, 4) are mounted.

86 29 781 appears to disclose a vacuum cleaner having a filter element (11) arranged between two parallel walls at the rear end of the vacuum cleaner housing (1), each wall provided with vent openings.

EP 0 749 719 appears to disclose an arrangement for covering an opening (2) in the housing (1) of a vacuum cleaner by means of a vent grid member (3).

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☒ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.
29/191,871

Filing Date
October 15, 2003

Art Unit
Unassigned

V. THIS IDS IS BEING FILED UNDER

A. ☒ **37 C.F.R. § 1.97(b):** (check only one box)

1. ☐ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ☒ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required.

4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ 37 C.F.R. § 1.97(c): (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ 37 C.F.R. § 1.97(d):

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ☐ some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was

known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. 1.704(d)

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VI. PAYMENT OF FEES (check only one box)

A. ☒ No fee is presently due.

B. ☐ A check in the amount of \$180.00 is enclosed for the above identified fee.

C. ☐ Please charge Deposit Account No. 02-2548 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

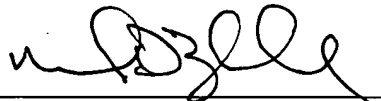
The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 02-2548.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 02-2548.

Respectfully submitted,

Dated: March 31, 2004

By: 
Michael D. Zalobsky
Reg. No. 45,512

Harness, Dickey & Pierce, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600
MDZ/cmn



FORM PTO-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**
(Use several sheets if necessary)

Sheet 1 of 8

ATTORNEY DOCKET NO.	SERIAL NO.
0275R-000799	10/686,506
APPLICANT	
Milligan et al	
FILING DATE	GROUP
10/15/2003	

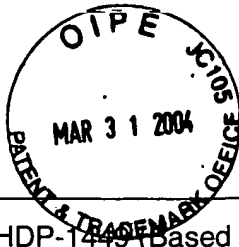
U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		2002/0166199	11/14/2002	Boles et al.		
2.		2002/0069476	06/13/2002	Yung		
3.		2003/0037403	02/27/2003	Lang		
4.		D433,004	05/29/1001	Chan		
5.		RE33,074	10/03/1989	Levine		
6.		D247,341	02/28/1978	Pelly		
7.		D327,342	06/23/1992	Leung et al.		
8.		D403,416	12/29/1998	Shelton et al.		
9.		D458,424	06/04/2002	Chen		
10.		D371,650	07/09/1996	Dingelstad		
11.		D231,658	05/14/1974	Stauff		
12.		D472,683	04/01/2003	Stratford		
13.		D389,963	01/27/1998	Scanlon et al.		
14.		156,288	08/27/1874	Hughes		
15.		971,044	09/27/1910	Hutchinson		
16.		1,156,235	10/12/1915	Kirby		
17.		1,420,665	06/27/1922	Newcombe		
18.		1,768,617	07/01/1930	Lee		
19.		1,786,384	12/23/1990	Amstutz		
20.		2,036,789	04/07/1936	Baker		
21.		2,198,568	04/23/1940	Yonkers, Jr.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



FORM HDP-1449 (Based on Form PTO-1449)

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INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Sheet 2 of 8

ATTORNEY DOCKET NO.

0275R-000799

SERIAL NO.

10/686,506

APPLICANT

Milligan et al

FILING DATE

10/15/2003

GROUP

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
22.		2,226,630	12/31/1940	McCord		
23.		2,242,278	05/20/1941	Yonders, Jr.		
24.		2,439,182	04/06/1948	Nuffer et al.		
25.		2,539,195	01/23/1951	Lang		
26.		2,564,468	04/14/1951	Anderson		
27.		3,257,784	06/28/1966	Grellsson		
28.		3,296,781	01/10/1967	Schumann		
29.		3,339,350	09/05/1967	Sims		
30.		3,365,864	01/30/1968	Iizima		
31.		3,465,413	09/09/1969	Rosaen et al.		
32.		3,486,626	12/30/1969	Miyagi et al.		
33.		3,524,211	08/18/1970	Wolf		
34.		3,561,824	02/09/1971	Homan		
35.		3,731,465	05/08/1973	Ohira et al.		
36.		3,816,983	06/18/1974	Sawada et al.		
37.		3,841,067	10/15/1974	Kato et al.		
38.		3,856,488	12/24/1974	Kato et al.		
39.		3,861,381	01/21/1975	Witman et al.		
40.		3,898,129	04/28/1987	Hawley		
41.		3,898,414	08/05/1975	Hawley		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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0275R-000799

10/686,506

PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

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APPLICANT

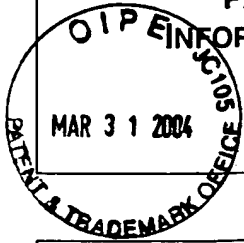
Milligan et al

FILING DATE

GROUP

10/15/2003

Sheet 3 of 8



U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
42.		3,898,488	08/05/1975	Hawley		
43.		3,921,250	11/25/1975	Jerabek		
44.		4,007,026	02/08/1977	Groh		
45.		4,105,420	08/08/1978	Moore		
46.		4,209,875	07/01/1980	Pugh et al.		
47.		4,225,814	09/30/1980	Gantze tal.		
48.		4,248,613	02/03/1981	Linhart		
49.		4,304,580	12/08/1981	Gehl et al.		
50.		4,388,582	06/14/1983			
51.		4,392,101	07/05/1983	Saar et al		
52.		4,426,211	01/17/1984	Ataka et al.		
53.		4,533,370	08/06/1985	Ikezaki et al.		
54.		4,588,464	05/13/1969	Close		
55.		4,661,129	04/28/1987	Nederman		
56.		4,716,352	12/29/1987	Hurn et al		
57.		4,745,654	05/24/1988	Yamamoto et al.		
58.		4,746,339	05/24/1988	Millard		
59.		4,790,306	12/13/1988	Bruan et al.		
60.		4,821,366	04/18/1989	Levine		
61.		4,878,930	11/07/1999	Manniso et al.		

Examiner:

Date Considered:

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APPLICANT

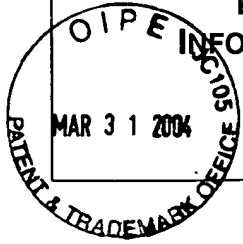
Milligan et al

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10/15/2003

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U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
62.		4,920,606	05/01/1990	Gerke, Jr., et al.		
63.		4,920,608	05/01/1990	Hult et al.		
64.		4,934,020	06/19/1990	Jackson		
65.		4,947,514	08/14/1990	Gerke, Jr. et al		
66.		4,967,443	11/06/1990	Krasznai et al.		
67.		5,005,252	04/09/1991	Steiner et al.		
68.		5,011,058	04/30/1991	Sapp et al.		
69.		5,020,186	06/04/1991	Kosten et al.		
70.		5,020,187	06/04/1991	Kosten et al.		
71.		5,043,640	04/27/1991	Bhagwat et al		
72.		5,065,473	11/19/1991	Krasznai et al.		
73.		5,074,006	12/24/1991	Eremita		
74.		5,084,934	02/04/1992	Lessig, III, et al.		
75.		5,092,015	03/03/1992	Kosten et al.		
76.		5,105,505	04/21/1992	Reed Jr.		
77.		5,114,217	09/01/1992	Gardner, et al		
78.		5,115,538	05/26/1992	Cochran et al.		
79.		5,134,751	08/04/1992	Reed Jr. et al.		
80.		5,148,094	09/15/1992	Parks et al		
81.		5,199,963	04/06/1993	Scarp		

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U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
82.		5,297,311	03/29/1994	Puri		
83.		5,388,302	02/14/1995	Sundaram et al.		
84.		5,599,401	02/04/1997	Brosky et al.		
85.		5,611,831	03/18/1997	Matsuoka et al.		
86.		5,634,238	06/03/1997	McCaffrey et al.		
87.		5,664,285	09/09/1997	Melito et al.		
88.		5,699,586	12/23/1997	Melito et al.		
89.		5,733,351	03/31/1998	Hult et al.		
90.		5,787,546	08/04/1998	Bass et al.		
91.		5,795,358	08/18/1998	Scanlon et al.		
92.		5,954,848	09/21/1999	Otto et al.		
93.		5,966,774	10/19/1999	Bone et al.		
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95.		6,018,231	01/25/2000	Shaver et al		
96.		6,075,341	06/13/2000	White et al		
97.		6,110,248	08/29/2000	Liu		
98.		6,133,713	10/17/2000	Brotto		
99.		6,154,007	11/28/2000	Shaver et al		
100.		6,154,008	11/28/2000	Bradus et al		
101.		6,160,447	12/12/2000	Watts		

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102.		6,172,487	01/09/2001	Brotto		
103.		6,192,550	02/27/2001	Hamada et al.		
104.		6,256,834	07/10/2001	Meijer et al.		
105.		6,269,518	08/07/2001	Yung		
106.		6,434,785	08/20/2002	Vandelbelt et al.		
107.		6,462,513	10/08/2002	Bradus et al		
108.		6,484,350	11/26/2002	Yung		
109.		6,546,592	04/15/2003	Cockburn et al.		

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Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		DE 100 56 935	02/28/2002	Germany			
2.		DE 101 10 582	01/03/2002	Germany			
3.		0 468 200	08/11/1993	EPO			
4.		EP 0 647 114	11/14/2001	EPO			
5.		EP 1 161 915	12/12/2001	EPO			
6.		630 169	05/22/1936	Germany			
7.		68 13 511	12/29/1968	Germany			
8.		0 170 720	02/12/1986	EPO			
9.		0 215 165	07/10/1991	EPO			

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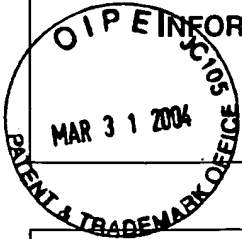
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10.		DE 199 59 513	07/26/2001	Germany			
11.		1 959 657	03/05/1967	Germany			
12.		0 008 117	11/21/1985	EPO			
13.		EP 1 070 478	01/24/2001	EPO			
14.		1 607 730	09/04/1969	Germany			
15.		DE 33 25 336	01/24/1985	Germany			
16.		DE 37 27 980	03/02/1989	Germany			
17.		DE 196 53 570	09/25/1997	Germany			
18.		1 874 119	06/20/1963	Germany			
19.		0 160 168	05/24/1989	EPO			
20.		0 548 523	07/05/1995	EPO			
21.		EP 0 921 748	10/18/2000	EPO			
22.		620 117	11/10/1935	Germany			
23.		1 403 128	11/28/1968	Germany			
24.		1 403 131	02/20/1969	Germany			
25.		1 611 157	10/08/1970	Germany			
26.		85 06 818	08/14/1986	Germany			
27.		86 23 695	11/27/1986	Germany			
28.		EP 0 983 743	03/08/2000	EPO			
29.		DE 33 09 162	09/20/1984	Germany			

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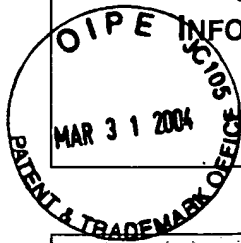
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Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
30.		DE 197 33 680	02/11/1999	Germany			
31.		1 988 318	06/27/1968	Germany			
32.		90 12 439	12/13/1990	Germany			
33.		EP 0 116 870	04/04/1990	EPO			
34.		EP 0 914 795	05/12/1999	EPO			
35.		DE 37 43 083	08/07/1997	Germany			
36.		DE 199 03 734	08/10/2000	Germany			
37.		DE 199 25 277	07/26/2001	Germany			
38.		86 29 781	04/14/1988	Germany			
39.		EP 0 674 870	10/04/1995	EPO			
40.		EP 0 749 719	04/18/2001	EPO			
41.		WO 01/80704	11/01/2001	WIPO			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

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